



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,680	02/04/2002	Tsung-Pei Chiang	B-4493 619511-2	7127
7590	05/30/2007		EXAMINER	
Richard P. Berg, Esq. c/o LADAS & PARRY Suite 2100 5670 Wilshire Boulevard Los Angeles, CA 90036-5679			NGUYEN, KEVIN M	
			ART UNIT	PAPER NUMBER
			2629	
			MAIL DATE	DELIVERY MODE
			05/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**

**MAY 30 2007**

**Technology Center 2600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/067,680

Filing Date: February 04, 2002

Appellant(s): CHIANG ET AL.

---

**Robert Popa**  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 1/22/2007 appealing from the Office action  
mailed 7/18/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,624,801	MORIYAMA	9-2003
6,335,719	AN ET AL.	1-2002

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Moriyama (US 6,624,801).
2. As to claim 12, Moriyama teaches "a driving method for a Thin Film Transistor (TFT) array" [*a TFT array 20, see Fig. 1A*], "capable of saving power" [see col. 16, lines 44-45], comprising:

"dividing a Thin Film Transistor array frame" [*at least a first frame FT, see Fig. 3A*] "into a first zone and a second zone" [*a first display region 31 and a second display region 32, see Fig. 6*];

Moriyama further teaches an alternative embodiment comprising "the first zone grouped into a graphic region and the second zone grouped into a non-graphic region" [*a difference of an aspect ratio on a screen (4:3 and 16:9) grouped into a dynamic picture (corresponding to a graphic region as claimed), and top/left and bottom/right portions grouped into a black portion (corresponding to a group of non-graphic region as claimed), see col. 18, lines 40-63 for further details of the explanation*];

driving the first and second zones respectively with line inversion and frame inversion [*the first display region 31 employs the row line inversion drive, and the second display region 32 employs the frame inversion driver, see Figs. 3A and 4, col. 16, lines 33-35 for details of the operation*].

3. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama in view of An et al (US 6,335,719) hereinafter An.

4. As to claim 13, Moriyama teaches all of the claimed limitation of claim 12, except for "implementing an Application Specific Integrated Circuit chip to provide the line inversion and the frame inversion."

However, An teaches a related TFT-LCD which includes "Application Specific Integrated Circuit chip to provide the line inversion and the frame inversion" (see col. 6, *lines 54-67 for further details of the operation*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the Application Specific Integrated Circuit chip as taught by An in the LCD device of Moriyama in order to achieve the benefit of intend to drive the LDC device, because this would improve a good quality of a picture being displayed, while preventing a generation of a flicker noise independently of a pattern of the picture (see An, col. 7, lines 1-5).

5. As to claim 16, Moriyama teaches "a LCD display" [a LCD device, Fig. 6, see col. 8, *lines 43-45*], comprising:

"driver circuit determining into a first and second driving types" [a shift register 40 drives the first display region 31 and the second display region 32, see Figs. 3A and 4, col. 16, *lines 33-35*];

"a Thin Film Transistor array" [a TFT array 20, see Fig. 1A, col. 8, *lines 45-52*], comprising:

Moriyama further teaches an alternative embodiment comprising "a first zone driven with the line inversion and group into a graphic zone, a second zone driven with the frame inversion and grouped into a non-graphic region" [a first portion is driving by a

*line inversion and a difference of an aspect ratio on a screen (4:3 and 16:9) grouped into a dynamic picture (corresponding to a graphic region as claimed), a second portion is driving by a frame inversion and top/left and bottom/right portions grouped into a black portion (corresponding to a group of non-graphic region as claimed), see col. 18, lines 40-63 for further details of the explanation];*

Accordingly, Moriyama teaches all of the claimed limitation, except for "implementing an Application Specific Integrated Circuit chip determining the line inversion and the frame inversion."

However, An teaches a related TFT-LCD which includes "Application Specific Integrated Circuit chip determining the line inversion and the frame inversion" (see col. 6, lines 54-67 for further details of the operation).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the Application Specific Integrated Circuit chip as taught by An in the LCD device of Moriyama in order to achieve the benefit of intend to drive the LDC device, because this would improve a good quality of a picture being displayed, while preventing a generation of a flicker noise independently of a pattern of the picture (see An, col. 7, lines 1-5).

#### **(10) Response to Argument**

##### A. Ground rejection of Moriyama.

Appellant argues Moriyama does not teach the limitation of claim 12 recited "driving a Thin Film Transistor array wherein a first zone is grouped into a graphic region and driven with a line inversion and a second zone is grouped into a non-graphic

region and driven with a frame inversion." In response, the examiner respectfully disagrees. As stated supra, the examiner has indicated that Moriyama expressly teaches at col. 18, lines 40-63, and col. 16, lines 33-35, a different of aspect ratio on the screen (4:3 and 16:9, e.g., LCD-TV) and the like cause black portions to be induced at the top and bottom of the screen such as the first and third display regions 31 and 33 at the top and bottom of the second display regions 32 display black portions (non-graphic regions as claimed), and the second display region 32 displays the screen grouped into a dynamic picture (a graphic region as claimed). At least one display region 31 displays black portion (corresponding to the non-graphic region recited in claim 12) is driven by the row line inversion, and the display region 32 displays the dynamic picture (corresponding to the graphic region recited in claim 12) is driven by the frame inversion. Among the above-described the liquid crystal display TV or LCD-TV, the current LCD-TV carries out control called "line inversion drive" in order to prevent screen burn-in in liquid crystal. In an apparent oversight, the appellant did not recognize the anticipation of Moriyama put forth in the last Final office action. Thus, claim 12 stands rejection.

B. Ground rejection of Moriyama in view of An et al.

With respect to dependent claim 13, the appellant argues the dependent claim 13 with the only emphasis of the limitation in the independent claim 12. In response, the examiner has addressed Moriyama teaches all of the limitation of independent claim 12, except for dependent claim 13 recited "an Application Specific Integrated Circuit chip". As modified by An et al reference, An et al further teaches the thin film transistor liquid

Art Unit: 2629

crystal display device that is driving by an Application Specific Integrated Circuit chip and thus An et al overcomes the deficiencies of Moriyama, thereby meeting claim 13.

Appellant argues the combination of Moriyama and An et al does not teach the limitation of claim 16 recited "an Application Specific Integrated Circuit chip, and a Thin Film Transistor array, comprising: a first zone driven the line inversion and grouped into a graphic region, and a second zone driven with the frame inversion and grouped into a non-graphic region." In response, this argument is not persuasive because claim 16 shares similar limitations to those included in claim 12 and therefore the rationale of rejection will be the same. Claim 16 has the added limitation "an Application Specific Integrated Circuit chip". As modified by An et al reference, An et al teaches a related thin film transistor liquid crystal display device having Application Specific Integrated Circuit chip and thus An et al overcomes the deficiencies of Moriyama, thereby meeting claim 16.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Kevin M. Nguyen

Patent Examiner

Conferees:

Richard Hjerpe

Bipin Shalwala



RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600